

✓ Cancel claim 28 without prejudice.

✓ Rewrite claim 29 in independent form as claim 39.

Amend claim 30 to read as follows:

30. An accessory as defined in claim 39 in which said elastomeric pad, or said decay pattern modifying component, or said pad and said component are fabricated from a material which comprises a chloroprene polymer.

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Amend claim 31 to read as follows:

31. An accessory as defined in claim 39 in which the material has a Durometer hardness in the range of 12 to 30.

Amend claim 32 as follows:

Claim 32 (amended) An accessory as defined in claim 39 in which the elastomeric pad is hollowed out by at least one vibration decay pattern modifier-free cavity to increase the kick reducing effect offered by said pad.

✓ Cancel claim 33 without prejudice.

✓ Cancel claim 34 without prejudice.

**REMARKS:**

For the most part, the changes to the specification required by the Examiner have been made. However, with respect to Section 6, page 3 of the Action, it is reference characters 65 and 66 that identify the heads of vibration decay pattern modifiers 34 and 36. Line 13 of page 9 has been corrected accordingly. Also, with respect to Section 8 of the Action, applicant has attached copies of FIGS. 6, 13, and 14 showing that reference characters 160, 201, and 203 (highlighted) do appear in these figures. (Attachment A)

With respect to Sections 2, 3, 4, and 9 of the Action, applicant has appended to this Amendment Attachment B, which contains drawing figures 3, 7, and 10-12. These figures show in red changes which applicant proposes to make in order to satisfy the Examiner's objections. The desired changes are:

FIG. 3 – relocate reference character "26" and its leadline; add reference character -- 46-- ; add reference characters --106 and 108--

FIG. 7 – relocate reference characters "138" and "140" and the leadlines associated with those reference characters

FIG. 10 -- change reference character "123" to -- 173 --

FIGS. 10, 11, and 12 – add reference characters -- 175 and 176 --

Once the Examiner has voiced her approval of the foregoing changes, Applicant will file new formal drawings incorporating the changes.

Claims 1-3, 5, 6, 10, 12-15, 17-25, and 35-39 are now in the application. Claims 5, 10, and 20 have been held to be directed to a non-elected invention. The rest of the just-identified claims are present for consideration by the Examiner.

Applicant has above amended independent claim 1 in a manner insuring that applicant's invention, as defined in that claim, is clearly and patentably distinct from anything disclosed in or otherwise made obvious by Johnson, the only reference applied against original claim 1. Specifically, claim 1 has been amended to specify that the pad and vibration decay pattern modifier called for in that claim be made from an organic, elastomeric polymer. Johnson's counterpart to the thus claimed modifier is a metal coil spring. Such a component is neither organic nor an elastomer.

This distinction is clearly one of patentable importance. The Johnson device is designed to: "delay the transfer of recoil energy to the shooter." (column 1, lines 38-41) Applicant's novel accessory, in contrast, works in a quite different manner by first sharply reducing the amplitude of the initial shock wave vibrations set up when a firearm is discharged and then rapidly reducing these vibrations in a manner of only a very few milliseconds to amplitudes at which they do not cause discomfort to or otherwise affect the shooter. Furthermore, metal springs are limited in the manner in which they can dampen or otherwise affect the vibration decay pattern of vibrations imposed on the spring. For example, loads applied normal to the longitudinal axis of the spring may actually cause a Johnson spring to oscillate in a manner which increases rather than decreases the magnitude of vibrations applied to the spring. Furthermore, metal springs have only limited internal freedom of movement, which hampers the decay pattern modification ability of the Johnson spring.

In contrast, the claimed elastomeric decay pattern modifiers operate upon vibrations essentially independent of the direction from which the wave reaches the modifier, and motion of the moieties within the modifier as well as the gross motions of that component are effective to modify vibration decay patterns into a positive manner.

In conjunction with this argument that the elastomeric qualification patentably distinguishes applicant's claimed decay pattern modifier from the metal spring of Johnson. Applicant has attached hereto the relevant pages of THERMODYNAMIC PROPERTIES OF POLYMERS by Kathryn R. Williams. Williams is but one of many, many publications which define the term "elastomeric" (Attachment C) in similar terms. What Williams makes clear is that elastomers are not only **organic polymers** but are organic polymers which have the special physical and molecular properties identified by Williams. In no sense is a steel or other metal spring an elastomeric component.

In addition to amending claim 1 to distinguish the accessory claimed therein from Johnson, Applicant has eliminated from the last clause of claim 1 limitations not needed to patentably distinguish that claim from the Johnson reference.

In conjunction with the foregoing, newly added claim 35, which depends from claim 1, deals with the features eliminated from the parent claim as discussed above.

Claims 2, 3, 6, 12, 13, 14, 15, 17 and 21 depend from claim 1. These claims are also considered clearly patentable over Johnson. Among the reasons that these claims are so considered are those discussed above with claim 1.

As to the combination of Sims and Johnson applied against claim 2, it is applicant's position that nothing in these references suggests the subject combination and that the rejection is therefore not sustainable. Also, nothing in either reference suggests mounting the claim 2 decay pattern modifiers in the particular manner specified in that claim.

Original, independent claim 18 was also rejected as anticipated by Johnson. This claim is considered obviously patentable over Johnson by virtue of its defining sealed pockets in the specified accessory: "that can collapse to elastically compress air filling the pocket when a [the] firearm is discharged, thus additionally, pneumatically cushioning the kick felt by the shooter upon the discharge of the firearm. Notably absent from Johnson are any pockets of this character. Such pockets would have to rely upon the integrity of stock plate 40 to close off such pockets. This, the plate does not do. Instead, any pockets in the Johnson device are deliberately vented to the ambient surroundings (see lines 25-34, column 3) and the attached copy of Johnson's FIG. 3 in which the venting channels and the manner in which they are connected to the surroundings are highlighted. (Attachment D)

Claims 19, 23, 24, and 25 are considered clearly patentable over Johnson for the same reasons that parent claim 18 is. In addition, these dependent claims are directed to an accessory which has both pneumatic vibration decay pattern modification as specified in the parent claim and modification with elastomeric decay pattern modifiers. Nothing of this character is even remotely suggested by Johnson.

In conjunction with the foregoing, Sims was combined with Johnson in the rejection of claim 24. This combination of references is believed to be improper because

neither reference in any way suggests vibration decay modification with a combination of mechanisms of any sort, let alone the combination of pneumatic and elastomeric damping as required in the dependent claims.

Claim 19 is considered even further patentable over Johnson because it is directed to an accessory with *three* decay pattern modifying mechanisms, pneumatic, elastomeric, and mechanical, the latter being provided via the presence of at least one additional cavity which reduces the amount of material in the elastomeric accessory pad and thereby enhances the pad's response to shock and vibrations. Furthermore, there is no way in which the combination of Johnson and Sims would lead one to an accessory with pneumatic vibration decay pattern modification as neither reference discloses a device with this feature.

Newly presented claim 39 replaces original claim 29. Claim 39 is considered clearly patentable over Johnson as nothing in that reference is a: "decay pattern modifying component having a head and an integral stem." In this regard, Sims does disclose a decay pattern of the subject configuration. However, nothing in Sims would suggest to one of ordinary skill in the art the mounting of his decay pattern modifier on the rigid plate of an accessory as defined in claim 29 or the orientation of thus mounted modifier with the head of that device disposed in the cavity of a complementary elastomeric pad.

Dependent claims 31 is considered patentable for the same reasons as parent claim 39 and because nothing in Johnson would lead one to employ an elastomeric polymer with the specific Durometer hardness called for in the claim in an accessory as defined in the parent claim. This hardness limitation is considered to be of patentable import as selection of an elastomer of the appropriate hardness is a contributing factor to the success of the claimed accessory.

Dependent claim 32 is considered patentable for the same reasons as parent claim 39 and because it contains a patentably distinguishing limitation of the character discussed above in conjunction with claim 19.

The references made of record in Section 28 of the Action but not applied to the claims have been carefully reviewed by applicant's undersigned attorney. At best, they are considered cumulative to the applied Johnson reference. For that reason and because they were not applied, they are not being discussed in detail herein. However, the undersigned is fully prepared to do so if the Examiner wishes upon receipt of a contact indicating that such discussion would be helpful.

For the reasons discussed above, it is believed that applicant has complied with all formal requirements and that the application now contains only claims which are clearly patentable over the references of record. Favorable reconsideration of the application is therefore believed to be in order and is accordingly solicited.

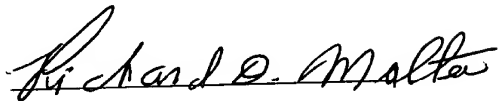
The amendments made above increase the number of independent claims in the application by 2. A check to cover the cost of the extra claims as well as the fee for a request for an extension of time to respond is attached.

Signed at Shelton, County of Mason, State of Washington, this 23<sup>rd</sup> day of June, 2003. Original response filed 23 January 2003.

Respectfully Submitted,

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